

# Unlock Rapid Clinico-Omics Insights with the GenAI-powered Omics Data Assistant

## KEY TAKEAWAYS:



- **Accelerate Discovery:** Rapidly translate complex clinico-omics data into actionable insights through intuitive, natural language queries.
- **Empower Non-Technical Users:** Enable researchers, clinicians, and therapeutic area leaders to independently create cohorts and explore datasets without reliance on bioinformatics or data engineering expertise.
- **Collaborative Efficiency:** Leverage the DNA**anexus** Trusted Research Environment (TRE) to streamline internal and external collaborations, facilitating real-time, context-rich conversations around datasets.
- **Proven Scalability:** ODA works with thousands of fields and millions of rows, as demonstrated through application on large-scale datasets hosted on the DNA**anexus** platform.



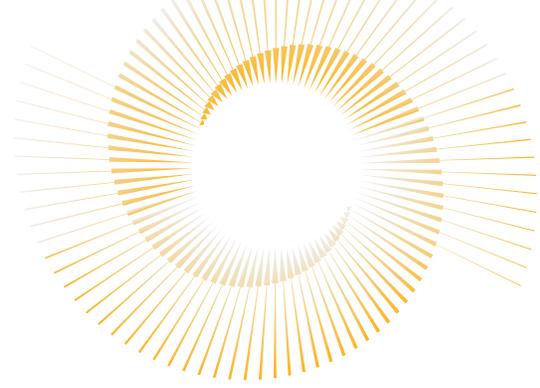
## The Problem:

Clinico-omics research generates vast volumes of complex, fragmented data across genomic, proteomic, and other omics modalities. Therapeutic area leaders and innovation teams face significant hurdles when attempting to navigate these complex datasets without deep technical expertise. Over-reliance on data specialists creates bottlenecks that delay insights, slow decision-making, and impede cross-functional collaboration.



## The Need:

The life sciences industry urgently requires solutions that democratize access to intricate clinico-omics data. Therapeutic area heads and innovation leaders need tools that provide rapid insights, enable real-time collaborative exploration, and meaningfully reduce dependence on specialized technical teams.



## Our Solution:

The DNAnexus Omics Data Assistant (ODA) is a GenAI-powered conversational interface that integrates seamlessly into the DNAnexus Cohort Browser. ODA empowers researchers and clinicians to effortlessly query complex datasets in natural language. By leveraging Large Language Models, ODA efficiently handles cohort creation, data summarization, and sophisticated longitudinal and cross-modal queries.

## Key Functionalities Include:

**Natural Language Queries:** Users can ask dataset specific questions conversationally, drastically simplifying data exploration.

**Cohort Definition and Refinement:** Intuitively define, adjust, and save cohorts without technical hurdles.

**Insight Generation:** Automated summaries and actionable insights derived directly from data queries.

**Longitudinal Data Exploration:** Easily perform complex temporal queries to track and analyze patient outcomes over time.

**Cross-Modal Analysis:** Seamlessly integrate and interrogate data across multiple omics modalities to reveal comprehensive insights.

## Your Benefits and Key Outcomes:

**Reduced Technical Barriers:** Non-technical therapeutic leaders easily access, explore, and analyze data, promoting self-sufficiency and efficiency.

**Enhanced Collaboration:** Foster context-rich collaboration across internal teams and external partners within the secure DNAnexus platform.

**Accelerated Time-to-Insight:** Swiftly move from data query to meaningful insight, expediting research cycles and enhancing competitive advantage.

**Optimized Resource Allocation:** Shift bioinformatics resources away from routine data queries towards high-value tasks, maximizing the strategic use of specialized talent.

**AI/ML Integration:** Seamlessly port ODA-generated cohorts and analyze them using DNAnexus AI/ML tools within a secure, closed-loop system ensuring compliance and protecting sensitive data.

**Secure and Compliant Exploration:** Maintain robust data security and compliance standards while maximizing data utility and insights in a trusted environment.



**Join leading life sciences organizations** in transforming your clinico-omics research process. Contact DNAnexus today to learn more about Omics Data Assistant and how the DNAnexus platform can help you start unlocking your data's full potential.